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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|------------------|
| 10/604,107 | 06/26/2003 | Jerry D. Hayes | bur920020055us1 | 1106 |
| 28722 | 7590 | 02/17/2006 | | |
| BRACEWELL & PATTERSON, L.L.P. P.O. BOX 969 AUSTIN, TX 78767-0969 | | | | |
| | | | EXAMINER PIERRE LOUIS, ANDRE | |
| | | | ART UNIT 2123 | PAPER NUMBER |
| DATE MAILED: 02/17/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/604,107 | HAYES ET AL. | |
| | Examiner | Art Unit | |
| | Andre Pierre-Louis | 2123 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1.0 Claims 1-12 have been presented for examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.0 Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Although the claim recites "a computer program product residing on a computer usable medium", paragraph 29 of the specification describes a signal bearing media, which does not fit into the four statutory categories. [See MPEP 2106]

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3.0 Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim refers to "a computer readable medium"; however, the specification merely provides examples of signal bearing media, which includes non-statutory media.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.0 Claims 1-2,4-6,8-10,12 are rejected under 35 U.S.C. 102(b) as being anticipated by Rostoker et al. (U.S. Patent No. 5,557,531).

4.1 In considering the independent claims 1, 5, and 9, Rostoker et al. teaches the functional equivalence of a method for performing input/output (I/O) flooring planning on an integrated circuit design, and particularly teaches the steps of: collecting user design data related to I/O circuits associated with each package pin (*fig.2-8, col.1 line 33-col.6 line 5*); sorting said collected user design data according to operating conditions (*fig.2-8, col.1 line 33-col.6 line 5; also col.7 line 55-col.15 line 27*); choosing an I/O behavioral model and a package model based on said sorted data; dynamically building a simulation deck with appropriate operating conditions (*fig.2-10, col.1 line 33-col.6 line 5; also col.7 line 55-col.15 line 27*); and performing simulation through a circuit simulator using said chosen I/O behavioral model and said operating conditions (*fig.10-12, col.6 line 48-col.9 line 5*).

4.2 As per claims 2,6, and 10, Rostoker et al. teaches the step of dynamically analyzing simulation results based on user-defined criteria (*col.1 line 33-col.6 line 5; col.6 line 48-col.15 line 27*).

4.3 Regarding claims 4,8, and 12, Rostoker et al. teaches the step of sorting further includes sorting said collected user design data according to frequency of operation of I/O circuits (*fig.2-8, 19, col.32 line 20-col.40 line 52*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5.0 Claims 3,7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker et al., as applied to claims 1-2,4-6,8-10,12, above in view of Chang et al. (U.S. Patent No. 6,269,467).

5.1 Regarding claims 3,7, and 11, Rostoker et al. teaches most of the instant invention; however, he does not expressly teach the step of collecting design specification from a customer's environment condition. Chang et al. teaches the step of

collecting design specification from a customer's environment condition (fig.2, also col.1 line 17-col.4 line 65; also col.7 line 63-col.9 line 64). It would have been obvious to one ordinary skilled in the art at the time of the applicant's invention to combine the teachings of Rostoker et al. with Chang et al. for the purpose of meeting customer functional requirement. Chang et al. further teaches the improvement of glue logic distribution and methodology reduction (col.21 line 65-col.22 line 11).

Conclusion

6.0 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6.1 Rostoker et al. (U.S. Patent No.5, 572,437) teaches a method and system for creating and verifying structural logic model of electronic design from behavioral description of logic and timing models.

6.2 Chang et al. (U.S. Patent No.6, 694,501) teaches a block based design methodology.

6.3 Mizuno et al. (U.S. Patent No. 6,845,489) teaches a database for design of integrated circuit device and method for designing integrated circuit device.

6.4 Tseng et al. (U.S. Patent No. 6,321,366) teaches a timing-insensitive glitch-free logic system and method.


7.0 claims 1-12 are rejected and this action is non-final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Pierre-Louis whose telephone number is 571-272-8636. The examiner can normally be reached on Mon-Fri, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 7, 2006

APL


Paul L. Rodriguez 2/15/06
Primary Examiner
Art Unit 2125